



09/970154 .06.2002

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SHINKAWA et al

Atty. Ref.: 249-201

Serial No. 09/970,154

Group:

Filed: October 4, 2001

Examiner:

For: METHOD FOR PURIFYING ANTIBODY

\* \* \* \* \*

June 10, 2002

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

**PRELIMINARY AMENDMENT**

Please amend the above-identified application as follows:

**IN THE CLAIMS**

Amend the claims as follows:

1. (Amended) A process for purifying an antibody composition having a desired property, which comprises using a substance having an affinity to a carbohydrate binding to the antibody.
8. (Amended) A process for purifying an antibody composition comprising an antibody having a carbohydrate structure to which bisecting N-acetylglucosamine is bound, which comprises using a column to which a wheat germ lectin or a *Lens culinaris* lectin E<sub>4</sub> is immobilized.
9. (Amended) A process for purifying an antibody composition having a high antibody-dependent cell-mediated cytotoxic activity, which comprises using a column to which a wheat germ lectin or a *Lens culinaris* lectin E<sub>4</sub> is immobilized.
10. (Amended) A process for purifying an antibody composition comprising an antibody having a carbohydrate structure to which fucose is bound, which comprises using a column to

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which a *Lens culinaris* lectin is immobilized.

11. (Amended) A process for purifying an antibody having a high antibody-dependent cell-mediated cytotoxic activity, which comprises using a column to which a *Lens culinaris* lectin is immobilized.

12. (Amended) A process for purifying an antibody composition comprising an antibody having a carbohydrate structure to which galactose is bound, which comprises using a carrier for hydrophobic chromatography.

13. (Amended) A process for purifying an antibody composition having a high complement-dependent cytotoxic activity or antibody-dependent cell-mediated cytotoxic activity, which comprises using a carrier for hydrophobic chromatography.

15. (Amended) A process for purifying an antibody composition having a desired property, which comprises combining the process according to any one of claims 1 and 8-13.

16. (Amended) The process according to any one of claims 1 and 8-13, wherein the antibody is human IgG.

18. (Amended) A medicament comprising, as an active ingredient, the antibody composition purified by the process according to any one of claims 1 and 8-13.

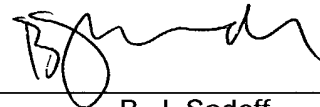
#### **REMARKS**

The claims have been amended to reduce the filing fees and improper multiple dependencies, to advance prosecution and without prejudice.

An early and favorable Action on the merits is requested.

Respectfully submitted,  
**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****IN THE CLAIMS**

Amend the claims as follows:

1. (Amended) A process for purifying an antibody composition having a desired property, which comprises using a substance having an affinity to a carbohydrate binding to the antibody.
8. (Amended) A process for purifying an antibody composition comprising an antibody having a carbohydrate structure to which bisecting N-acetylglucosamine is bound, which comprises using a column to which a wheat germ lectin or a *Lens culinaris* lectin E<sub>4</sub> is immobilized.
9. (Amended) A process for purifying an antibody composition having a high antibody-dependent cell-mediated cytotoxic activity, which comprises using a column to which a wheat germ lectin or a *Lens culinaris* lectin E<sub>4</sub> is immobilized.
10. (Amended) A process for purifying an antibody composition comprising an antibody having a carbohydrate structure to which fucose is bound, which comprises using a column to which a *Lens culinaris* lectin is immobilized.
11. (Amended) A process for purifying an antibody having a high antibody-dependent cell-mediated cytotoxic activity, which comprises using a column to which a *Lens culinaris* lectin is immobilized.
12. (Amended) A process for purifying an antibody composition comprising an antibody having a carbohydrate structure to which galactose is bound, which comprises using a carrier for hydrophobic chromatography.
13. (Amended) A process for purifying an antibody composition having a high complement-dependent cytotoxic activity or antibody-dependent cell—mediated cytotoxic activity, which comprises using a carrier for hydrophobic chromatography.
15. (Amended) A process for purifying an antibody composition having a desired property, which comprises combining the process according to any one of claims 1 [to 14] and

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8-13.

16. (Amended) The process according to any one of claims 1 [to 15] and 8-13, wherein the antibody is human IgG.

18. (Amended) A medicament comprising, as an active ingredient, the antibody composition purified by the process according to any one of claims 1 [to 17] and 8-13.